

2014

Banking on Bitcoin: Applying Anti-Money Laundering and Money Transmitter Laws

Kelsey L. Penrose

Follow this and additional works at: <http://scholarship.law.unc.edu/ncbi>Part of the [Banking and Finance Law Commons](#)

Recommended Citation

Kelsey L. Penrose, *Banking on Bitcoin: Applying Anti-Money Laundering and Money Transmitter Laws*, 18 N.C. BANKING INST. 529 (2013).Available at: <http://scholarship.law.unc.edu/ncbi/vol18/iss2/12>

This Notes is brought to you for free and open access by Carolina Law Scholarship Repository. It has been accepted for inclusion in North Carolina Banking Institute by an authorized administrator of Carolina Law Scholarship Repository. For more information, please contact law_repository@unc.edu.

Banking on Bitcoin: Applying Anti-Money Laundering and Money Transmitter Laws

I. INTRODUCTION

As the first global, digital, and decentralized currency, bitcoin is the currency of the Internet.¹ Bitcoin relies heavily on peer-to-peer networking, eliminating the need for a central authority.² Instead of allowing a government or bank to control the flow of bitcoins, the entire network of bitcoin users manages the transactions and issues bitcoins.³ Users do not have to interact with banks and financial companies to transact in bitcoins; users need only interact with the person to whom they want to send bitcoins.⁴ Bitcoin appeals to individuals who would like to remain anonymous, as payments can be made without any personal information being exchanged.⁵

The government must adapt existing anti-money laundering and money transmitter laws to cover this new virtual currency and stop illegal activities. The government began the process with the U.S. Treasury Department's Financial Crime Enforcement Network's (FinCEN) guidance on which regulations apply to individuals or entities using virtual currencies.⁶ While this answered some questions, it only scratched the surface of the complexities of the initial regulation of bitcoin.⁷ The question remains as to which laws should apply to bitcoin and how. More specifically, money transmitter and anti-money

1. See Reuben Grinberg, *Bitcoin: An Innovative Alternative Digital Currency*, 4 HASTINGS SCI. & TECH. L.J. 159, 160 (2012).

2. See *id.*; see also Jeffrey A. Tucker, *Bitcoin for Beginners*, THE FREEMAN, May 2013, at 19.

3. See EUR. CENT. BANK, VIRTUAL CURRENCY SCHEMES 21 (Oct. 2012), available at <http://www.ecb.europa.eu/pub/pdf/other/virtualcurrencyschemes201210en.pdf>.

4. *Id.*

5. See Jose Pagliery, *Ron Paul: Bitcoin Could 'Destroy the Dollar'*, CNN MONEY (Dec. 4, 2013, 12:01 PM), <http://money.cnn.com/2013/12/04/technology/bitcoin-libertarian/>.

6. FIN. CRIMES ENFORCEMENT NETWORK, DEP'T OF THE TREAS. (March 18, 2013), available at http://fincen.gov/statutes_regs/guidance/html/FIN-2013-G001.html.

7. See generally *id.*

laundering laws must adapt to the challenges presented by bitcoin.⁸

This Note discusses the steps the government has already taken and ultimately suggests that the government should create a National Money Transmitter Licensing System modeled on the National Mortgage Licensing System. Part II explains the creation and infrastructure of bitcoin.⁹ Part III explores regulation of bitcoin at the federal and state level.¹⁰ Part IV examines the potential of a National Money Transmitter Licensing System.¹¹ Part V concludes with a brief overview.¹²

II. THE CREATION OF BITCOIN

A. *The Origins of Bitcoin*

During the 2008 financial crisis, many worried about a global financial failure. Investment banks had unloaded mortgage-backed securities at an unprecedented rate, the housing bubble had burst, and the government had resorted to bailing out big banks.¹³ During this time of turbulence in the financial markets, many people feared the failure of government-controlled currencies and sought an alternative.¹⁴ Some people advocated for a return to the gold standard, while others still wanted a complete return to gold and silver as legal tender.¹⁵

8. See generally *id.*

9. See *infra* Part II.

10. See *infra* Part III.

11. See *infra* Part IV.

12. See *infra* Part V.

13. See Brian J.M. Quinn, *The Failure of Private Ordering and the Financial Crisis of 2008*, 5 N.Y.U. J.L. & BUS. 549, 563–64 (2009); see also Simon Johnson & James Kwak, *To Battle Wall Street, Obama Should Channel Teddy Roosevelt* (Apr. 4, 2010), <http://www.washingtonpost.com/wp-dyn/content/story/2010/04/02/ST2010040203390.html?sid=ST2010040203390>.

14. When Cyprus decided to confiscate money from citizens' deposit accounts to battle its growing debt, many flocked to bitcoin. The value of bitcoin around this time doubled, as citizens fought to keep their money out of the government's hands. See Tucker, *supra* note 2, at 21; see also Paddy Hirsch, *What Just Happened in Cyprus? An Explainer*, MARKETPLACE (Mar. 25, 2013, 10:40 AM), <http://www.marketplace.org/topics/world/whiteboard/what-just-happened-cyprus-explainer>.

15. *Arizona Returning to Gold Rush Roots With a Bill Making Gold Legal Tender*, FOX NEWS (May 1, 2013), www.foxnews.com/politics/2013/05/01/arizona-returning-to-gold-rush-roots-with-bill-making-gold-legal-tender/ (noting that Utah became the first state to approve gold and silver as legal tender while lawmakers in Arizona, Minnesota, Idaho,

One individual, Satoshi Nakamoto,¹⁶ took it upon himself to create a new currency, bitcoin, which would have the positive characteristics of a backed currency without the perceived drawbacks of traditional currency under the control of government.¹⁷ This virtual currency would have a finite supply that no government or institution could ever change, eliminating the ability of central authorities to enact harmful inflationary programs.¹⁸ Furthermore, its entirely digital nature makes the currency capable of journeys across the entire world in mere seconds.¹⁹

B. Mining Bitcoins

Bitcoins are created through a process called “mining.”²⁰ The significance of mining is twofold: it creates bitcoins and verifies bitcoin transactions.²¹ Anyone can become a miner by downloading and running a mining software program on their computer.²² The software

South Carolina, Colorado, and other states have debated similar laws); Jake Miller, *Arizona Bill Recognizes Gold, Silver as Legal Currency*, CBS NEWS (May 1, 2013 11:03 AM), http://www.cbsnews.com/8301-250_162-57582317/arizona-bill-recognizes-gold-silver-as-legal-currency/ (discussing the problems that would accompany using gold as legal tender, such as forcing businesses to weigh gold and silver constantly to determine the correct amount for payment and the difficulties of carrying gold and silver in one’s pocket).

16. Satoshi Nakamoto is a pseudonym and could refer to one individual or a group. The true identity of the creator of bitcoin is unknown, although both the New Yorker and Fast Company tried and failed to identify him. Nakamoto used a Japanese anonymous registration service and Japanese ISP to register bitcoin.org, but switches between American and British spellings and colloquialisms in his paper first explaining bitcoin. See *Who is Satoshi Nakamoto?*, COINDESK, <http://www.coindesk.com/information/who-is-satoshi-nakamoto/> (last updated Nov. 26, 2013); Adrienne Jeffries, *Four Years and \$100 Million Later, Bitcoin’s Mysterious Creator Remains Anonymous*, THE VERGE (May 6, 2013, 11:12 AM), <http://www.theverge.com/2013/5/6/4295028/report-satoshi-nakamoto>; Alec Lui, *Who Is Satoshi Nakamoto, the Creator of Bitcoin?*, MOTHERBOARD (May 2013), <http://motherboard.vice.com/blog/who-is-satoshi-nakamoto-the-creator-of-bitcoin>.

17. Tucker, *supra* note 2.

18. See *id.* at 20. As explained below, this helps to keep the valuation steady, preventing volatile swings that the dollar and euro have recently encountered.

19. See *id.* at 21 (describing a purchase using bitcoin).

20. *Id.*

21. *Id.*

22. Jared Cummins, *All About The Bitcoin ETF*, FIN. ADVISOR (Aug. 22, 2013), <http://www.fa-mag.com/news/all-about-the-bitcoin-etf-15261.html>. There are various mining programs other people have created that can be downloaded online and used to mine bitcoins. Miners also have the choice between mining bitcoins on their own or joining a “pool,” where many miners combine their computer power together to more efficiently mine bitcoins. Most miners do join a pool, in which case the entire pool of miners is considered one node. *Bitcoin Under Pressure*, THE ECONOMIST (Nov. 30, 2013),

then connects to the bitcoin network, creating a “node.”²³ Every time a bitcoin transaction is made, the transaction is broadcast to the entire network.²⁴ The nodes are listening to this bitcoin network, collecting the valid transactions being made, and putting them into a “block.”²⁵ A block is just a record that contains and confirms bitcoin transactions that users make.²⁶ At the same time that the node is bundling all the transactions into a block, it is also trying to solve a difficult mathematical problem, called a “proof-of-work.”²⁷ When the node solves the proof-of-work, it broadcasts the block and the solution to the entire network.²⁸ The network checks to make sure that the solution is correct and all the transactions in the block are valid.²⁹ If it is correct, then the block is added to the “blockchain,” a public ledger that lists every confirmed transaction ever made.³⁰ After the block is accepted, the nodes begin working on solving the algorithm again to add the next block to the blockchain.³¹ The algorithm adjusts its difficulty so that on average, one block is created every ten minutes.³²

The blockchain contains every valid transaction made since the first block created on January 3, 2009, to present.³³ The miners, ordinary people around the world, are the ones who secure the

<http://www.economist.com/news/technology-quarterly/21590766-virtual-currency-it-mathematically-elegant-increasingly-popular-and-highly>.

23. See Satoshi Nakamoto, *Bitcoin: A Peer-to-Peer Electronic Cash System* 3, <http://bitcoin.org/bitcoin.pdf> (last visited Dec. 13, 2013).

24. *Id.*

25. *Id.* Nodes only put valid transactions into the block. Valid transactions are those that do not break any of the “rules” outlined in the code, including checking to make sure a bitcoin has not been “double-spent,” that the output is not more than the input, among others. *Id.* at 2.

26. Vocabulary, BITCOIN, <http://bitcoin.org/en/vocabulary> (last visited Dec. 13, 2013).

27. Nakamoto, *supra* note 23.

28. *Id.*

29. *Id.* (noting that this is done very quickly).

30. Nikolei M. Kaplanov, *Nerdy Money: Bitcoin, the Private Digital Currency, and the Case Against Its Regulation*, 25 LOY. CONSUMER L. REV. 111, 118-19 (2012).

31. Nakamoto, *supra* note 23.

32. Grinberg, *supra* note 1, at 163, n.16. Nonetheless, bitcoins are being created faster than anticipated. Rather than six blocks being created every hour (one block every ten minutes), the average is actually seven, sometimes eight, blocks per hour. The difficulty is adjusted every 2016 blocks (about two weeks), and that is not enough to keep up with how quickly nodes are solving the algorithm. BITCOIN WIKI, <https://en.bitcoin.it/wiki/Difficulty> (last visited Dec. 13, 2013).

33. Peter Twomey, *Halting a Shift in the Paradigm: The Need for Bitcoin Regulation*, 16 TRINITY C.L. REV. 67, 70 (2013).

transactions and stop others from “double-spending” their bitcoins.³⁴ If someone tried to do this, the miners would check the balance of the account, recognize the deficiency, and reject the transaction.³⁵

The miner’s incentive to solve the algorithm, and thereby verify transactions, is the reward of bitcoins.³⁶ For every block published, bitcoins are created and awarded to the person who verified the transactions within that block.³⁷ The miners not only receive these newly created bitcoins, but also any bitcoins from transaction fees.³⁸ Originally, fifty bitcoins per block were given as a reward to miners.³⁹ However, for every 210,000 blocks produced,⁴⁰ the amount of bitcoins rewarded is reduced by half, ensuring that bitcoins have a confined, finite supply.⁴¹ There will never be more than twenty-one million bitcoins in existence; a number that is estimated to be reached in the year 2140.⁴² Miners’ rewards will be continually halved until all the bitcoins are created.⁴³ As this reward decreases, transactions fees will increase to cover the cost instead. There are over twelve million bitcoins in existence today.⁴⁴

34. See BITCOIN WIKI, <https://en.bitcoin.it/wiki/Double-spending> (last visited Jan. 30, 2014).

35. See *id.*

36. Kaplanov, *supra* note 30, at 119. When bitcoin began in 2009, it did not take much computer power to solve the algorithm. A person could mine on a laptop computer. Since bitcoin has become more and more popular, the difficulty of the algorithm has greatly increased. This means that miners need specialized hardware, like ASICs, to be competitive. ECONOMIST, *supra* note 22. Once all the bitcoins are created, miners will still have the incentive to verify these transactions through higher transaction fee rewards. Nakamoto, *supra* note 23, at 4.

37. See Kaplanov, *supra* note 30, at 119-20.

38. See Grinberg, *supra* note 1, at 165. Every time a user sends bitcoins, she can choose to add a transaction fee, which will go to the miner that verifies and publishes her transaction on the blockchain.

39. See *id.* at n.163.

40. To create 210,000 blocks takes about four years. Vitalik Buterin, *Block Reward Halving: A Guide*, BITCOIN MAGAZINE (Nov. 27, 2012), <http://bitcoinmagazine.com/2842/block-reward-halving-a-guide/>.

41. See Grinberg, *supra* note 1, at n.163.

42. EUR. CENT. BANK, *supra* note 3, at 25. As the number of bitcoins created is continually halved, bitcoins will approach, but never reach twenty-one million. BITCOIN WIKI, https://en.bitcoin.it/wiki/Controlled_supply (last visited Jan. 30, 2014). As bitcoins are being created faster than anticipated, it is likely that bitcoins will approach twenty-one million sooner than 2140.

43. See Grinberg, *supra* note 1, at n.163.

44. *Total Bitcoins in Circulation*, BLOCKCHAIN CHARTS, <http://blockchain.info/charts/total-bitcoins> (last visited Dec. 13, 2013).

C. *Acquiring Bitcoins*

Most people will not have the computer power necessary to mine bitcoins, but they can purchase them with real currency.⁴⁵ To purchase bitcoins, an individual must first download software on her computer or phone to create a digital wallet, where bitcoins are stored.⁴⁶ Once the digital wallet is in place, users have the option to purchase on bitcoin exchanges or purchase from individuals locally.⁴⁷

To purchase and sell bitcoins locally, two users meet and exchange cash for bitcoins, eliminating the need to provide personal identification as required in bitcoin exchanges.⁴⁸ A user might know someone willing to sell, or there are websites that allow people to search for sellers in their area.⁴⁹ These transactions do carry some amount of risk though, since there is no guarantee that the stranger will send the bitcoins after money has been received.⁵⁰ The websites guard against this by allowing buyers to review the authenticity of sellers prior to transacting with them.⁵¹

Still, the most common way to purchase bitcoins is to use a bitcoin exchange—a third-party service that converts bitcoins into real currency, such as dollars, pounds, euros, or yen.⁵² Exchanges work in a similar manner to banks, where people have accounts within the exchange using national currencies.⁵³ Originally, these exchanges did not require users to supply any personal identification, and all transactions were anonymous.⁵⁴ On March 18, 2013, FinCEN issued

45. EUR. CENT. BANK, *supra* note 3.

46. *Id.* A wallet does not always have to be on a computer; users can keep wallets on their phones through wallets apps, or on the Internet using a website of a service provider that hosts bitcoins. *How Bitcoin Works*, FORBES (Aug. 1, 2013), <http://www.forbes.com/sites/investopedia/2013/08/01/how-bitcoin-works/>.

47. *See, e.g.*, MT. GOX, <https://www.mtgox.com/> (last visited Feb. 8, 2014); LOCAL BITCOINS, <https://localbitcoins.com/> (last visited Feb. 8, 2014).

48. *See generally* LOCAL BITCOINS, <https://localbitcoins.com/> (last visited Feb. 8, 2014).

49. LocalBitcoins.com is a common site used to search for sellers in the area, and then arrange a meeting to buy bitcoins. *Id.*

50. *See id.*

51. *Id.*

52. *See* FED. BUREAU OF INVESTIGATION, BITCOIN VIRTUAL CURRENCY: UNIQUE FEATURES PRESENT DISTINCT CHALLENGES FOR DETERRING ILLICIT ACTIVITY (Apr. 24, 2012), available at <http://cryptome.org/2012/05/fbi-bitcoin.pdf>.

53. *See* BITCOIN WIKI, https://en.bitcoin.it/wiki/Currency_exchange (last visited Sept. 13, 2013).

54. *See* Michael Kan, *Need cash? Then You'll Need ID at Bitcoin Exchange Mt. Gox*,

guidance detailing how certain bitcoin entities must require personal identification from customers in order for them to withdraw currencies other than bitcoin.⁵⁵

Each digital wallet has a private key and an indefinite amount of public keys, through which transactions are made.⁵⁶ A key is a random string of numbers and letters used to encrypt and decrypt bitcoin transactions.⁵⁷ While every person on the network can see the public key, only the individual user knows her private key.⁵⁸ The public key encrypts the bitcoins and the private key decrypts them.⁵⁹ Although other users can see the bitcoins being sent over the network, only the person with knowledge of the private key is able to access those bitcoins.⁶⁰ All transactions published on the blockchain are identifiable by the public key.⁶¹ It is easy to see the trail of bitcoins, but difficult to determine whose trail it is.⁶²

For example, suppose Person A wants to send Person B ten bitcoins. Person B gives Person A her public key.⁶³ Person A takes the public key and sends ten bitcoins to it. Everyone can see these ten bitcoins being sent, but the only person able to receive the bitcoins into her digital wallet is Person B because she is the only one that has the private key that will unlock them.

When Person A wanted to send ten bitcoins to Person B, she sent the transaction containing the bitcoins to the entire network. The other miners verified that this transaction was accurate: that Person A had that many bitcoins to send to Person B. If all the numbers match up, then the transaction is added into a block. Eventually the block is

PCWORLD (May 31, 2013, 6:24 AM), <http://www.pcworld.com/article/2040400/bitcoin-exchange-mt-gox-requires-account-verification-after-liberty-reserve-shutdown.html>.

55. See generally FIN. CRIMES ENFORCEMENT NETWORK, DEP'T OF THE TREAS., *supra* note 6.

56. EUR. CENT. BANK, *supra* note 3, at 23. These keys are stored on a user's computer files. If the computer files are lost or destroyed, so are all the bitcoins on those digital wallets, unless the key data has been backed up. *Id.*

57. See Sue Marquette Poremba, *Behind the Padlock: How Secure Web Connections Work*, NBC NEWS (Sept. 16, 2013, 2:55 PM), <http://www.nbcnews.com/technology/behind-padlock-how-secure-web-connections-work-8C11171202>.

58. See *id.*

59. See *id.*

60. See BITCOIN WIKI, https://en.bitcoin.it/wiki/Private_key (last visited Jan. 30, 2014).

61. Twomey, *supra* note 33.

62. See EUR. CENT. BANK, *supra* note 3.

63. A public key is also known as an address.

published on the blockchain, which shows the network that Person A's wallet is negative the bitcoins she sent, and Person B's wallet is positive the bitcoins she received.⁶⁴ The block displays the public key used, but no personal information that could be used to identify the parties.

III. REGULATION OF BITCOIN

A. *Regulation at the Federal Level*

1. Background of Anti-Money Laundering Laws in the United States

The blockchain's lack of any personal identification makes bitcoin a prime currency for illegal use.⁶⁵ The government has made some initial attempts to fit bitcoin into existing anti-money laundering and money transmitter laws, and detailed whether bitcoin users and entities qualify as money services businesses (MSBs).⁶⁶

MSBs include: (1) any person doing business, whether or not on a regular basis, as currency dealers or exchangers; (2) check cashers; (3) issuers of traveler's checks, money orders or stored value; (4) sellers or redeemers of traveler's checks, money orders or stored value; (5) money transmitters; and (6) the U.S. Postal Service.⁶⁷ The Code of Federal Regulations defines money transmitters as "[a] person that provides money transmission services . . . [or] [a]ny other person engaged in the transfer of funds."⁶⁸

MSBs and other financial institutions are regulated, in part, by the Bank Secrecy Act of 1970 (Bank Secrecy Act) and Title III of the

64. A block is created every ten minutes. BITCOIN WIKI, <https://en.bitcoin.it/wiki/Blocks> (last visited Feb. 8, 2014). When exchanging bitcoins, it is a good idea to wait for at least one verification from the network to make sure the transaction went through.

65. In June 2011, Senators Charles Schumer and Joe Manchin expressed this very concern in a letter to the Attorney General and to the Administrator of the Drug Enforcement Administration. Brett Wolf, *Senators Seek Crackdown on "Bitcoin" Currency*, REUTERS (June 8, 2011, 11:17 AM), <http://www.reuters.com/article/2011/06/08/us-financial-bitcoins-idUSTRE7573T320110608>.

66. FIN. CRIMES ENFORCEMENT NETWORK, DEP'T OF THE TREAS., *supra* note 6.

67. See 31 C.F.R. § 1010.100(ff) (2013).

68. *Id.* § 1010.100(ff)(5)(i).

USA Patriot Act of 2001 (Patriot Act).⁶⁹ The Bank Secrecy Act was the first major money laundering legislation in the United States, and required financial institution and banks to record and report information about certain customer transactions.⁷⁰ Financial institutions must properly identify people conducting transactions and keep appropriate records of financial transactions.⁷¹ They must file Currency Transaction Reports (CTRs) for each deposit, withdrawal, exchange of currency, or other payment or transfer which involves a transaction in currency of more than \$10,000.⁷² CTRs allow law enforcement to track huge sums of money potentially used for illegal purposes by identifying the source, volume, and movement of currency.⁷³ Financial institutions must also file Suspicious Activity Reports (SARs) for any questionable transactions relevant to a possible violation of federal law or regulation.⁷⁴ Financial institutions identify suspicious activity by training employees to spot certain types of activity during day-to-day operations, like frequent purchasers of monetary instruments, and implementing surveillance monitoring.⁷⁵ SARs give law enforcement critical information that allows them to initiate or supplement investigations into potential money laundering or other criminal cases.⁷⁶

The Money Laundering Control Act of 1986 (Money Laundering Control Act) criminalized money laundering at the federal level.⁷⁷ It prohibits the knowing and intentional transfers of proceeds generated from certain crimes, known as specified unlawful activities

69. See Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001, Pub. L. No. 107-56, § 301-77 115 Stat. 272, 296-342; see also Bank Secrecy Act, Pub.L. 91-508, Titles I, II, 84 Stat. 1114-24.

70. 31 U.S.C. § 5311 (2012); Courtney J. Linn, *Redefining the Bank Secrecy Act: Currency Reporting and the Crime of Structuring*, 50 SANTA CLARA L. REV. 407, 407 (2010).

71. 31 C.F.R. § 1010.312 (2013); 31 C.F.R. § 1010.306 (2013).

72. 31 C.F.R. § 1010.311 (2013). The term “financial institution” is broadly defined to include, among others, banks, savings and loans, thrift institutions, brokers or dealers in securities or commodities, currency exchanges, and transmitters of funds. See 31 U.S.C. § 5312 (2012).

73. See FED. FIN. INSTS. EXAMINATION COUNCIL, BANK SECRECY ACT/ANTI-MONEY LAUNDERING EXAMINATION MANUAL, available at http://www.ffiec.gov/bsa_aml_infobase/pages_manual/OLM_002.htm (last visited Dec., 10, 2013).

74. 31 C.F.R. § 1024.320(a)(1) (2013).

75. FED. FIN. INSTS. EXAMINATION COUNCIL, *supra* note 73.

76. *Id.*

77. See 18 U.S.C. § 1956(b) (2012); see also 18 U.S.C. 1957 (2012).

(SUAs).⁷⁸ It also amended the Bank Secrecy Act by introducing civil and criminal forfeiture for Bank Secrecy Act violations.⁷⁹

The Patriot Act, enacted in the wake of the terrorist attacks on September 11, 2001, augmented the Bank Secrecy Act by imposing enhanced requirements for anti-money laundering programs and expanding coverage to include non-bank financial institutions.⁸⁰ It directed the Treasury Department to implement “Know Your Customer” regulations that prescribe due diligence standards to verifying customer identity, including documenting the customer’s name, address, date of birth, identification number (e.g., social security number, passport number, taxpayer identification number), and whether the person appears on any terrorist lists.⁸¹ Without such information, the financial institution cannot allow the person to open an account.⁸² To comply with these acts, MSBs are required to have anti-money laundering programs in place, with rules and procedures to prevent money laundering within the financial institution by retaining records and filing reports, among other things.⁸³

2. FinCEN’s Guidance to Clarify the Applicability of AML Regulations to Virtual Currencies

On March 18, 2013, FinCEN issued guidance on which virtual currency users and entities qualify as MSBs, under current regulations, in order to clarify the applicability of anti-money laundering laws to virtual currencies.⁸⁴ The guidance distinguishes virtual currencies from real currencies as “medium[s] of exchange that operate[] like a currency

78. See 18 U.S.C. § 1956 (2012); *id.* § 1956(b)(7) (listing specific crimes that constitute an SAU).

79. FINANCIAL CRIMES ENFORCEMENT NETWORK, HISTORY OF ANTI-MONEY LAUNDERING LAWS, available at http://www.fincen.gov/news_room/aml_history.html (last visited Jan. 14, 2014).

80. See Eric J. Gouvin, *Bringing out the Big Guns: The USA Patriot Act, Money Laundering, and the War on Terrorism*, 55 BAYLOR L. REV. 955, 971 (2003).

81. *Id.* at 970-71.

82. *Id.*

83. 31 C.F.R. § 1022.210(a); see also *id.* § 1022.210(d) (establishing minimum requirements of anti-money laundering programs for MSBs).

84. FIN. CRIMES ENFORCEMENT NETWORK, DEP’T OF THE TREAS., *supra* note 6. The FinCEN guidance did not address bitcoins exclusively, but virtual currencies as a whole. It also distinguished between centralized virtual currencies and decentralized virtual currencies, and E-currencies and E-precious metals. See *id.*

in some environments, but do[] not have all the attributes of real currency.”⁸⁵ Businesses that act as money transmitters are not exempt from money transmission regulations simply because they do not deal in real currency.⁸⁶

The three classifications for virtual currency users and entities are user, administrator, and exchanger.⁸⁷ A “user” is defined by FinCEN as “a person that obtains virtual currency to purchase goods or services.”⁸⁸ Users do not need to register as an MSB or comply with any of the reporting and recordkeeping regulations.⁸⁹

An “administrator” is “a person engaged as a business in issuing (putting into circulation) a virtual currency, *and* who has the authority to redeem (to withdraw from circulation) such virtual currency.”⁹⁰ Administrators are MSBs under FinCEN’s directive and therefore subject to regulation.⁹¹ While other virtual currencies might have administrators, no bitcoin user has a meaningful way of redeeming bitcoins.⁹² There is no central authority to demand the return of bitcoins.⁹³ Therefore, the administrator category does not apply to the bitcoin community.

An “exchanger,” as defined by FinCEN, is “a person engaged as a business in the exchange of virtual currency for real currency, funds, or other virtual currency,” and is an MSB under FinCEN’s regulations.⁹⁴ Based on their role in bitcoin transactions, those involved in bitcoin exchanges are exchangers, and, therefore MSBs, because their main purpose is to allow individuals to trade bitcoins for real currency.⁹⁵ Bitcoin entities that qualify as MSBs must now register with FinCEN and comply with all federal anti-money laundering

85. *Id.* at 1.

86. *See id.* at 3 (“The definition of a money transmitter does not differentiate between real currencies and convertible virtual currencies.”).

87. FIN. CRIMES ENFORCEMENT NETWORK, DEP’T OF THE TREAS., *supra* note 6, at 2.

88. *Id.*

89. *Id.*

90. *Id.* (emphasis added).

91. *Id.* at 3.

92. *See* FED. BUREAU OF INVESTIGATION, *supra* note 52.

93. Tucker, *supra* note 2, at 20.

94. FIN. CRIMES ENFORCEMENT NETWORK, DEP’T OF THE TREAS., *supra* note 6, at 3.

95. Adrienne Jeffries, *US Government Seized \$5 Million from Bitcoin Behemoth Mt. Gox*, THE VERGE (Aug. 23, 2013), <http://www.theverge.com/2013/8/23/4651926/us-government-seized-5-million-from-bitcoin-behemoth-mt-gox>.

regulations.⁹⁶

FinCEN's guidance clarified requirements for bitcoin entities, particularly bitcoin exchanges, by classifying them as MSBs.⁹⁷ Nonetheless, this FinCEN guidance never specifically addressed miners of bitcoins.⁹⁸ Confusion surrounded the bitcoin community on whether miners must register as MSBs and comply with all applicable laws.⁹⁹ Companies and individuals wrote to FinCEN articulating these concerns and asking for clarification on the role of miners.¹⁰⁰

On January 30, 2014, FinCEN published an administrative ruling addressing whether a miner's conduct brings her within the Bank Secrecy Act's definition of a money transmitter.¹⁰¹ In this ruling, FinCEN emphasized that money transmission services is "the acceptance of currency, funds, or other value that substitutes for currency from one person *and* the transmission of currency, funds, or other value that substitutes for currency to another location or person by any means."¹⁰² A money transmitter is a person who provides money transmission services.¹⁰³

What is pertinent to the question of whether a miner is a money transmitter depends upon what a user does with her bitcoins, not on how she receives it.¹⁰⁴ To the extent a miner creates bitcoins solely for her own purposes, she is not a money transmitter under the Bank Secrecy Act.¹⁰⁵ As such, the miner is free to use her mined bitcoins to purchase real goods or services for her own use.¹⁰⁶ As long as she does not use the bitcoins for "acceptance" and "transmission" of bitcoins to other individuals, then she will not be participating in money transmission services, will not be a money transmitter, and, therefore, will not have

96. See FIN. CRIMES ENFORCEMENT NETWORK, DEP'T OF THE TREAS., *supra* note 6.

97. See *id.*

98. See *id.*

99. See, e.g., Milly Bitcoin, *FinCEN Issues Bitcoin-Friendly Ruling for Miners*, COIN TEXT (Dec. 27, 2013), <http://cointext.com/fincen-issues-bitcoin-friendly-ruling-for-miners/asking-FinCEN-to-clarify-the-status-of-miners>).

100. See FIN. CRIMES ENFORCEMENT NETWORK, DEP'T OF THE TREAS. (Jan. 30, 2014), available at http://www.fincen.gov/news_room/rp/rulings/html/FIN-2014-R001.html.

101. See *id.*

102. 31 C.F.R. § 1010.100(ff)(5)(i)(A) (2013) (emphasis added).

103. FIN. CRIMES ENFORCEMENT NETWORK, DEP'T OF THE TREAS., *supra* note 100, at 1.

104. See *id.* at 2.

105. See *id.*

106. *Id.* at 3.

to register with FinCEN.¹⁰⁷ Furthermore, a user's conversion from bitcoin into a real currency for her own purposes does not make the user a money transmitter.¹⁰⁸

3. The Implication of Bitcoin's Terminology

Bitcoins are not considered legal tender in the United States, but are subject to anti-money laundering regulations much like real currencies.¹⁰⁹ Implicit from the FinCEN guidance on money transmission is the idea that virtual currencies cannot escape regulation just because they are not issued by a government.¹¹⁰ One judicial opinion in the U.S. District Court for the Eastern District of Texas has made this point explicitly.¹¹¹ On July 23, 2013, the Securities and Exchange Commission (SEC) charged Trendon Shavers with violating anti-fraud and registration provisions under the federal securities laws.¹¹² Shavers, founder of Bitcoin Savings and Trust, lured investors in by promising them 7% interest per week.¹¹³ Shavers argued his business was not subject to SEC regulation as bitcoin is not money.¹¹⁴ Judge Amos Mazzant did not embrace this argument and in a motion for summary judgment to determine whether the court had subject matter jurisdiction, held:

It is clear that Bitcoin can be used as money. It can be used to purchase goods or services, and . . . used to pay for individual living expenses. The only limitation of Bitcoin is that it is limited to those places that accept it as currency. However, it can also be exchanged for conventional currencies, such as the U.S. dollar, Euro,

107. See 31 C.F.R. § 1010.100(ff)(5)(i)(A) (2013).

108. FIN. CRIMES ENFORCEMENT NETWORK, DEP'T OF THE TREAS., *supra* note 100, at 3.

109. See FIN. CRIMES ENFORCEMENT NETWORK, DEP'T OF THE TREAS., *supra* note 6.

110. See *id.*

111. SEC v. Shavers, No. 4:13-CV-416, 2013 WL 4028182, at *2 (E.D. Tex. Aug. 6, 2013) (Mazzant, Mag. J.).

112. Press Release, Securities and Exchange Commission, SEC Charges Texas Man With Running Bitcoin-Denominated Ponzi Scheme (July 23, 2013), <http://www.sec.gov/News/PressRelease/Detail/PressRelease/1370539730583#.UkIk8GTdJnI>.

113. *Id.*

114. SEC v. Shavers, No. 4:13-CV-416, 2013 WL 4028182, at *2 (E.D. Tex. Aug. 6, 2013) (Mazzant, Mag. J.).

Yen, and Yuan. Therefore, *Bitcoin is a currency* or form of money, and investors wishing to invest in BTCST provided an investment of money.¹¹⁵

This federal opinion echoes general opinion that bitcoins are a currency. The court concluded that investments in bitcoin were investment contracts and thus securities allowing the court to have subject matter jurisdiction to determine whether Shavers defrauded investors in violation of the federal securities laws.

Although Judge Mazzant wrote in his opinion that bitcoin is a currency, FinCEN declined to declare the same at a Senate hearing on November 18, 2013.¹¹⁶ FinCEN stated that defining bitcoin was not pertinent because whether it's a currency, commodity, or security, there are similar regulations in place across the industry.¹¹⁷ After Senator Heidi Heitkamp focused on the need to categorize virtual currencies, FinCEN noted that a definition was outside its purview.¹¹⁸

However, the Bank Secrecy Act and the Patriot Act are termed at stopping money laundering using *real* currency.¹¹⁹ CTRs must be filed for any "transaction[s] in *currency* of more than \$10,000."¹²⁰ But currency is defined as "[t]he coin and paper money of the United States or of any other country that is designated as legal tender and that circulates and is customarily used and accepted as a medium of exchange in the country of issuance."¹²¹ Transactions in currency are further defined as "transaction[s] involving the physical transfer of currency from one person to another."¹²² Transferring funds through

115. *Id.* (emphasis added).

116. Russell J. Bruemmer et al., *On the Road to Legitimacy? Regulators Appear Ready to "Maximize the Good" of Virtual Currency*, WILMERHALE (Nov. 20, 2013), <http://www.wilmerhale.com/pages/publicationsandnewsdetail.aspx?NewsPubId=107374227> 15.

117. *Senate Holds Hearings on Virtual Currency*, GOODWIN PROCTOR LLP (Nov. 26, 2013), <http://www.goodwinprocter.com/Publications/Newsletters/Consumer-Financial-Services-Alert/2013/20131126.aspx?device=pdf&article=7>.

118. *Id.*

119. See *Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001*, Pub. L. No. 107-56, § 301-77 115 Stat. 272, 296-342; see also *Bank Secrecy Act*, Pub.L. 91-508, Titles I, II, 84 Stat. 1114-24.

120. 31 C.F.R. § 1010.311 (2013) (emphasis added).

121. 31 C.F.R. § 1010.100(m) (2013) (describing "currency" to include U.S. silver certificates, U.S. notes, Federal Reserve notes, and official foreign bank notes).

122. *Id.* § 1010.100(bbb)(2) (defining "transaction in currency" with regard to filing obligations).

bank checks, bank drafts, or wire transfers does not constitute physical transfers of currency.¹²³

Bitcoin does not meet the definition of currency: it is not the coin and paper money of the United States or any other country.¹²⁴ Although FinCEN has advised that AML regulations apply to those exchangers of bitcoin, it also stated that it was not ready to rule on whether bitcoin is a currency.¹²⁵ Without this declaration, slight variations to these AML regulations are needed to encompass virtual currencies.

4. Reaction After FinCEN's Guidance

After FinCEN issued its guidance concerning how anti-money laundering laws affect virtual currency businesses,¹²⁶ not all bitcoin entities took the appropriate steps to comply with United States law. In May 2013, a judge determined there was probable cause to issue a search warrant when law enforcement suspected that Mt. Gox, a bitcoin exchange, was engaged in money transmitting without a license.¹²⁷ Federal agents seized \$2.1 million from Mt. Gox's account with Dwolla, a payments processor, as well as \$2.9 million from the company's Wells Fargo account.¹²⁸ The government took these actions because Mt. Gox was operating as a money transmitter without a license.¹²⁹ In response, Mt. Gox registered as an MSB in June 2013.¹³⁰

The bitcoin exchanges that have registered with FinCEN as MSBs must now comply with all anti-money laundering laws under the

123. *Id.*

124. See 31 C.F.R. § 1010.100(m) (2013); THE LAW LIBRARY OF CONGRESS, GLOBAL LEGAL RESEARCH CENTER (Jan. 2014), available at http://cdn1.sbnation.com/assets/3952017/2014010233_Law_Library_of_Congress_Bitcoin_jurisdictional_survey.pdf (describing the regulation of bitcoin in forty-one countries, none of which have labeled bitcoin as legal tender).

125. See Bruemmer, *supra* note 116; see also GOODWIN PROCTOR LLP, *supra* note 117.

126. See FIN. CRIMES ENFORCEMENT NETWORK, DEP'T OF THE TREAS., *supra* note 6.

127. Aff. in Supp. of Seizure Warrant ¶ 1, May 14, 2013, available at <http://cdn.arstechnica.net/wp-content/uploads/2013/05/Mt-Gox-Dwolla-Warrant-5-14-13.pdf>. Mutum Sigillum LLC was the legal entity that Mt. Gox used for transferring funds.

128. Jeffries, *supra* note 95.

129. *Id.*

130. Jeremy Bonney, *Mt. Gox Registers With FinCEN as a Money Services Business*, COINDESK (June 29, 2013, 9:45 AM), <http://www.coindesk.com/mt-gox-registers-with-fincen-as-a-money-services-business/>.

Bank Secrecy Act and the Patriot Act, such as filing CTRs and SARs.¹³¹ As part of its MSB registration, Mt. Gox established an anti-money laundering program requiring personal identification of users.¹³² Mt. Gox allows users to register for three different account levels: level 0, no verification needed; level 1, verified status; or level 2, trusted status.¹³³ Level 0 does not require any personal user information and remains anonymous, but the individual may only engage in transactions involving bitcoins.¹³⁴ Level 1 requires the individual to register with the Mt. Gox Anti-Money Laundering team to deposit or withdraw any real currency into her account.¹³⁵ The documents required for verification at level 1 are a valid copy of a government issued photo ID and proof of residence that is less than six months old, such as a utility or phone bill.¹³⁶ Level 2 is designed for day traders, professionals, and companies that need a higher daily and monthly withdrawal limit.¹³⁷ The same documents that are required for level 1 are necessary for level 2 verification.¹³⁸ Businesses must send notarized "certificate[s] of incorporation[,] valid cop[ies] of government issued photo ID of shareholder entities with 10% or more in voting rights[,] proof of residence (less than three months old)[,] company constitution or articles of memorandum, and cop[ies] of the Trust Deed for the Trust involved as part of shareholders."¹³⁹ Bitcoin exchanges are complying with federal regulations by registering with FinCEN as MSBs.¹⁴⁰ Now, in addition to seeing all the transactions taking place in their exchange on the blockchain, Mt. Gox also has the personal information to give to the federal government for any suspicious activity in regards to those

131. See FIN. CRIMES ENFORCEMENT NETWORK, DEP'T OF THE TREAS., *supra* note 6.

132. See *AML Account Statuses*, MT. GOX. SUPPORT DESK, <https://support.mtgox.com/entries/21651045-AML-Account-Statuses>.

133. *Id.*

134. *Id.*

135. *Id.*

136. *Id.*

137. *AML Account Statuses*, MT. GOX. SUPPORT DESK, <https://support.mtgox.com/entries/21651045-AML-Account-Statuses> (stating that the daily withdrawal limit for level 1 is \$10,000 (or equivalent) or 1,000 bitcoins, and the monthly withdrawal limit is \$50,000 and no limit on bitcoin withdrawal).

138. *Id.* (stating that the withdrawal limits for level 2 are significantly higher, and the daily withdrawal limit is \$100,000 or 10,000 bitcoins, and the monthly withdrawal limit is \$500,000 and still no limit on bitcoin withdrawal).

139. *Id.*

140. See *id.*

transactions.¹⁴¹

B. Regulation at the State Level

While all MSBs must register with FinCEN, they must also comply with each state's individual money transmitter laws.¹⁴² Currently, forty-eight states and the District of Columbia have money transmitter laws.¹⁴³ These states require MSBs operating within their territory to be licensed with the state banking department.¹⁴⁴ Each state's money transmitter laws differ on what is required to obtain a money transmitter license, and just because the business is considered a money transmitter by the federal government does not necessarily mean it will be classified as such in a particular state.¹⁴⁵

In North Carolina, no person can engage in money transmission without a license.¹⁴⁶ North Carolina defines money transmission as "[t]he sale or issuance of payment instruments or stored value [or] [t]he act of engaging in the business of receiving money or monetary value for transmission within the United States or to locations abroad by any and all means, including payment instrument, wire, facsimile, or electronic transfer."¹⁴⁷ A person engaged in money transmission includes "an Internet website North Carolina citizens may access in order to enter those transactions by electronic means."¹⁴⁸ To qualify for a license, entities must have a net worth between \$100,000 and \$500,000, pay the licensing fee of at least \$1,000 plus \$10 per location up to \$5,000, and the bonding requirement is \$150,000 with an additional \$5,000 per location, not to exceed \$250,000.¹⁴⁹ Assuming bitcoin exchanges meet the requirements, it seems likely that the North

141. *See id.*

142. Robin Sidel & Andrew R. Johnson, 'Virtual' Currencies Draw State Scrutiny, WALL ST. J. (May 31, 2013, 8:29 PM), <http://online.wsj.com/news/articles/SB10001424127887324682204578517604191541808>.

143. *Id.* (noting that South Carolina and Montana are the only two states that do not require money transmitters to obtain licenses).

144. *Id.*

145. *See id.*

146. N.C. GEN. STAT. § 53-208.3 (2013).

147. *Id.* § 53-208.2(a)(11).

148. *Id.* § 53-208.3(c).

149. Colin Watterson, *More Flies with Honey: Encouraging Formal Channel Remittances to Combat Money Laundering*, 91 TEX. L. REV. 711, 738-39 (2013) (providing a helpful overview of bonding, licensing fee, and net worth requirements for each state).

Carolina government would require these exchanges to obtain a money transmitter license if they plan to do business with North Carolina residents.

Bitcoin entities face a lengthy and ambiguous process to determine whether each state will require a money transmitter license. There is no national standard for defining money transmission requiring licensing; each state has different requirements regarding whether a business or individual qualifies as a money transmitter.¹⁵⁰ Bitcoin businesses would have to hire attorneys to conduct extensive research into the forty-eight states and the District of Columbia that have money transmitter laws to determine whether businesses must obtain licenses in that state.¹⁵¹ This is difficult and cumbersome to dissect without clear guidance from each state on whether virtual currency firms qualify as money transmitters. Furthermore, the business, or the attorney for the business, may not interpret the state laws in the same way as the state regulator. The patchwork of separate state interpretations of money transmission hinders credible bitcoin businesses that want to operate legally.

The confusion surrounding the requirement of a state money transmitter license is exemplified by the California Department of Financial Institution's Cease and Desist Letter to the Bitcoin Foundation for engaging in money transmission without a license.¹⁵² The Bitcoin Foundation is a non-profit corporation that promotes the use of bitcoins.¹⁵³ The Foundation's directors maintain that although it accepts donations in bitcoin, it does not sell bitcoins to consumers, and thus cannot be considered a money transmission service.¹⁵⁴ Regardless of the future resolution of the dispute with the Bitcoin Foundation, states need to be proactive in understanding virtual currencies in order to

150. See 2 HARRY D. MILLER & MARVIN B. STARR, CALIFORNIA REAL ESTATE § 4:84 (3d ed. 2012).

151. See *id.*

152. Jon Mantonis, *Bitcoin Foundation Receives Cease and Desist Order from California*, FORBES (June 23, 2013, 11:11 AM), <http://www.forbes.com/sites/jonmantonis/2013/06/23/bitcoin-foundation-receives-cease-and-desist-order-from-california/>.

153. BITCOIN FOUNDATION, <https://bitcoinfoundation.org/> (last visited Feb. 8, 2014).

154. Letter from J. Dax Hansen, Partner, Perkins Coie, to Tara L. Murphy, Assistant Gen. Counsel, Dep't. of Fin. Insts., Cal. Bus., Transp. & Hous. Agency (July 1, 2013), available at <http://www.scribd.com/doc/151346841/Bitcoin-Foundation-Response-to-California-DFI>.

clearly express which bitcoin businesses must register as money transmitters.

IV. NATIONAL MONEY TRANSMITTER LICENSING SYSTEM

Bitcoin regulations require a balance between allowing new technologies to prosper, while still ensuring the protection of the country's financial system. As discussed above, regulators have clearly taken an interest in bitcoins given their potential use in illegal activity and money laundering.¹⁵⁵ While FinCEN has issued guidance on requirements for bitcoin businesses at a federal level,¹⁵⁶ state compliance remains a murky and unfriendly territory due to the uncertainty of whether bitcoin entities must obtain money transmitter licenses in every state.

While registering with FinCEN as a money transmitter is relatively straightforward, the major obstacles are determining which states require money transmitter licenses and subsequently obtaining those licenses. State-by-state licensing requirements make more sense for brick-and-mortar businesses that only interact with a few surrounding states. In today's digital age, obtaining individual state licenses creates a time-consuming handicap for businesses conducting Internet transactions in all fifty states trying to make a good faith effort to comply with federal and state laws. Due to the global nature of bitcoin businesses, users could access their website from anywhere in the United States. These businesses would need to register as a money transmitter in every state that requires one. In response to the confusion presented here, Congress could pass an act modeled after Nationwide Mortgage Licensing System (NMLS).¹⁵⁷

The problem of requiring licenses for each state a company does business in is not a new problem.¹⁵⁸ Prior to 2008, mortgage loan originators had little regulation and offered loans to risky borrowers.¹⁵⁹ Without the ability to refinance and reset higher interest rates on their

155. See *supra* Part III.

156. See FIN. CRIMES ENFORCEMENT NETWORK, DEP'T OF THE TREAS., *supra* note 6.

157. 12 U.S.C. § 5101 (2012).

158. See Raymond H. Brescia, *Subprime Communities: Reverse Redlining, the Fair Housing Act and Emerging Issues in Litigation Regarding the Subprime Mortgage Crisis*, 2 ALB. GOV'T L. REV. 164, 171-72 (2009).

159. *Id.*

loans, borrowers were forced to foreclose on their homes.¹⁶⁰ In response to the subprime mortgage crisis in 2008, the federal government created the Secure and Fair Enforcement of Mortgage Licensing Act of 2008 (SAFE Act).¹⁶¹ The SAFE Act applies to all loan originators and requires them to obtain, and renew annually, a license.¹⁶² It implements various standards, such as the requirement that an applicant must have demonstrated financial responsibility and met the net worth or surety bond requirement, among others, in order to be issued a state license.¹⁶³

The SAFE Act also established the NMLS to maintain a federal registry system for licensing and registering loan originators.¹⁶⁴ This system “increase[s] uniformity, reduce[s] regulatory burden, enhance[s] consumer protection, and reduce[s] fraud.”¹⁶⁵ States are encouraged to participate in NMLS, but at a minimum, must put in place a system for registering and licensing loan originators that meet the requirements of the SAFE Act.¹⁶⁶ The SAFE Act implements a bifurcated process for loan originators between “registered loan originators” and “state-licensed loan originators.”¹⁶⁷ Loan originators employed by state-licensed companies must hold a state license in order to do business in that state.¹⁶⁸ Loan originators employed by institutions

160. *Id.* at 172.

161. MILLER & STARR, *supra* note 150.

162. Stephen F.J. Ornstein et al., *The Housing and Economic Recovery Act of 2008*, 61 CONSUMER FIN. L.Q. REP. 944, 948-49 (2007).

163. Stephen F.J. Ornstein et al., *Secure and Fair Enforcement for Mortgage Licensing Act of 2008*, 62 CONSUMER FIN. L.Q. REP. 36, 39 (2008).

164. MILLER & STARR, *supra* note 150.

165. 12 U.S.C. § 5101 (2012).

166. *Commentary on Model State Law*, U.S. DEP'T OF HOUS. AND URBAN DEV., http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/rmra/safe/cmsl (last visited Oct. 22, 2013).

167. Ornstein et al., *supra* note 163, at 37. A “loan originator” is an individual who “takes a residential mortgage loan application; and offers or negotiates terms of a residential mortgage loan for compensation or gain[.]” 12 U.S.C. § 5102(4) (2012). A “registered loan originator” is an individual who is defined as a loan originator, maintains a “unique qualifier” through NMLS, and is an employee of a “depository institution; a subsidiary that is owned controlled by a depository institution and regulated by a Federal banking agency; or an institution regulated by the Farm Credit Administration.” 12 U.S.C. § 5102(8) (2012). A “state-licensed loan originator” is an individual who is defined as a loan originator, maintains a “unique qualifier” through NMLS, is also licensed by a state, but is not an employee of a “depository institution; a subsidiary that is owned controlled by a depository institution and regulated by a Federal banking agency; or an institution regulated by the Farm Credit Administration.” 12 U.S.C. § 5102(12) (2012).

168. *See* 12 U.S.C. § 5103(a) (2012).

regulated by a Federal banking agency or the Farm Credit Administration must be federally registered in order to conduct business.¹⁶⁹ Registered loan originators are not required to meet state licensing requirements.¹⁷⁰

Some states have expanded the use of NMLS to new industries, including money transmitter licensing.¹⁷¹ Currently, fourteen states manage their money transmitter licensing through NMLS.¹⁷² Congress could pass an act similar to the SAFE Act making a national licensing system that is specifically tailored for money transmitter licenses for virtual currencies. Such an act could explicitly detail what is required to obtain a money transmitter license at the federal and state level. Congress could create a National Money Transmitter Licensing System, similar to NMLS, for states to opt into. Those states that choose not to opt in could implement their own systems, subject to federal standards. Or unlike NMLS, this system could require mandatory participation from the states.

Virtual currency businesses would greatly benefit from an act like this. Businesses could register at the federal level, while at the same time registering for the state level. Even if some states decided not to opt into the national licensing system, the act would still set forth minimum requirements making it easier for virtual currency businesses to navigate each state's money transmitter licensing system. A comprehensive money transmitter database would be centralized and publicly available, allowing consumers to research and obtain information about these businesses. This would facilitate efficiency and innovation in this developing payment method. Overall, this would streamline the licensing process for money transmitters and enhance consumer protection.

169. *See id.* § 5103(b).

170. MILLER & STARR, *supra* note 150.

171. NATIONWIDE MORTGAGE LICENSING SYSTEM & REGISTRY, STATES EXPAND USE OF NMLS TO NEW INDUSTRIES, <http://mortgage.nationwidelicencingsystem.org/news/Pages/ExpandedUse.aspx> (last visited Oct. 22, 2013). Authorized agents of money transmitters will not be managed through NMLS. *Id.*

172. *Id.* (identifying those states that manage their money transmitter licensing through NMLS as Iowa, Idaho, Kentucky, Louisiana, Maryland, Minnesota, North Dakota, New Hampshire, Oklahoma, Pennsylvania, Tennessee, Vermont, Washington, and Wyoming).

V. CONCLUSION

Bitcoin is an entirely new and exciting currency, capable of revolutionizing financial markets. Due to its unprecedented nature, the government currently faces problems with regulating bitcoin money laundering while maintaining a perceived benefit of the anonymous nature of bitcoin. There is no central authority that the government can work with to discover the person behind all bitcoin transactions.¹⁷³ Though every single person on the network can see the blockchain, all they see are the public keys, which do not give any information on the identity of the person behind that public key.¹⁷⁴ The government can track all transfers of bitcoins over the blockchain, without ever finding the most important piece of information: the transferor's identity.¹⁷⁵

Regulations are necessary for bitcoin as its popularity continues to grow at a phenomenal rate.¹⁷⁶ With FinCEN's guidance on what qualifies as an MSB in regards to virtual currencies, the government can more adequately stop money laundering in institutions like the bitcoin exchanges.

Moving forward the government needs to define what exactly a bitcoin is.¹⁷⁷ Once bitcoin is clearly defined, the government will have an easier time navigating which laws apply and which do not, and can more easily adapt existing laws to encompass virtual currencies.

173. See Grinberg, *supra* note 1.

174. EUR. CENT. BANK, *supra* note 3, at 23.

175. *Id.*

176. In November 2011, one bitcoin was worth about \$3. In November 2013, one bitcoin was worth about \$211. BLOCKCHAIN.INFO, BLOCKCHAIN, BITCOIN MARKET PRICE, https://blockchain.info/charts/market-price?timespan=all&showDataPoints=false&daysAverageString=1&show_header=true&scale=0&address= (last visited Dec. 13, 2013).

177. This is already beginning to take place as members of the Bitcoin Foundation met with a number of government agencies at the U.S. Treasury building in Washington, D.C. in August 2013 to discuss the future of virtual currencies. Emily Spaven, *What Happened at the US Regulators' Bitcoin Meeting?*, COINDESK (Aug. 27, 2013, 1:36 PM), http://www.coindesk.com/what-happened-at-the-bitcoin-foundations-meeting-with-us-regulators/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+CoinDesk+%28CoinDesk+-+The+Voice+of+Digital+Currency%29&utm_content=FeedBurner. Regulators seem to be embracing the legitimacy of virtual currencies. At a senate hearing on November 18, 2013, Mythili Raman, an acting Assistant Attorney General for the Department of Justice, stated that "many virtual currency systems offer legitimate financial services and have the potential to promote more efficient global commerce." Ryan Tracy, *Authorities See Worth of Bitcoin*, WALL ST. J. (Nov. 19, 2013, 12:04 AM), <http://online.wsj.com/news/articles/SB20001424052702304439804579205740125297358>.

Even with FinCEN's guidance on preventing money laundering at the federal level, much work still needs to be done at the state level. No state has issued guidance on how money transmitter laws affect virtual currencies. Perhaps, a system like NMLS would alleviate some of the problems that bitcoin businesses face when attempting to comply with state money transmitter laws.

We live in a global world. We are all interconnected, communicating and transacting with each other on a daily basis. There is a need for a global currency to facilitate trade between citizens of different countries, and bitcoin could be that global currency.

Bitcoin could revolutionize the way the world uses money, and with any new advancement, the government must implement comprehensive regulations. Bitcoin is an entirely new creation compared to other currencies, and its growth should be encouraged, not stifled.

KELSEY L. PENROSE

